



AMERICA'S UNDERSEA TREASURES

AZA and NOAA's National Marine Sanctuaries in Partnership

BY SARAH MARQUIS



You are 60 feet below the surface of the blue Pacific waters offshore famed Cannery Row in Monterey Bay National Marine Sanctuary. Diffused sunlight filters down through the swaying kelp forest as you pause to watch a rockfish dart between the feathery leaves. A pair of playful Harbor Seals notice you and come up to investigate, swimming closer with curiosity.

You have joined the thousands of divers who have experienced the beauty and abundance of marine life found in the sanctuary's waters.

Only you're not diving. You're not actually in the sanctuary. In fact, you're not even in California.

You are among the hundreds of thousands of people who have visited the waters of Monterey Bay National Marine Sanctuary from a dry, comfortable seat at Mystic Aquarium's Immersion program in Mystic, Connecticut. There, visitors control a remotely operated vehicle (ROV) with cameras transmitting live video from the sanctuary's ocean floor via fiber optic cable to a theater screen in the aquarium's Immersion Theater. The system, called telepresence, is made possible through a partnership between the National Oceanic and Atmospheric Administration's (NOAA) National Marine Sanctuary Program and the Sea Research Foundation, the parent of Mystic Aquarium and Institute for Exploration, home to Dr. Robert Ballard.

It is one of many partnerships between national marine sanctuaries and AZA members, benefiting individual sanctuaries around the country, zoos and aquariums, and most importantly, benefiting the public interested in our nation's aquatic wonders.

"Our oceans are a public trust. Every American shares in the responsibility of their stewardship," said Daniel J. Basta, Director of the National Marine Sanctuary Program. "Restoring and protect-



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Later in 2005, Mystic will be linked to an ROV in Florida Keys National Marine Sanctuary, giving Immersion Theater visitors the opportunity to compare the marine life in the cold Pacific with the tropical fish and coral formations in the much warmer waters of the Atlantic in the Florida sanctuary.



EDUCATIONAL OUTREACH AT THE GULF OF THE FARALLONES MARINE SANCTUARY © MARIA BROWN / NOAA

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ing the oceans through partnerships is what I would call the 'sanctuary way.'"

Later in 2005 Mystic will be linked through the same system to an ROV in Florida Keys National Marine Sanctuary, giving Immersion Theater visitors the opportunity to compare the marine life in the cold Pacific with the tropical fish and coral formations in the much warmer waters of the Atlantic in the Florida sanctuary.

"Working with NOAA on the sanctuary project is a tremendous experience," said Dr. Steve Coan, Immersion's executive director. "Using today's technology, we can bring people all the thrills and excitement involved in exploring the beautiful waters of the national marine sanctuaries. Our visitors don't get their feet wet, but our partnership with NOAA definitely whets their interest in preserving and protecting these national treasures."

The National Marine Sanctuary Program, part of NOAA's Ocean Service, protects a network of special underwater places, embracing part of the nation's collective riches. By authority of 1972's Federal National Marine Sanctuaries Act, the program works with partners and the public to promote conservation while allowing compatible commercial and recreational activities.

The National Marine Sanctuary Program and AZA have entered into a partnership to support and facilitate a broad framework for joint participation in outreach and education, exhibits, materials and programs. At individual sites, the sanctuaries partner with AZA members on many levels, with both formal and informal agreements.

"People protect what they know and love," Basta said. "AZA member aquaria and zoos give millions of Americans the ideal opportunity to experience our national marine sanctuaries through exhibits, programs and telepresence."

NATIONAL MARINE SANCTUARY PROGRAM

There are currently 13 national marine sanctuaries encompassing more than 18,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys, and from Lake Huron to American Samoa. In addition, the sanctuary program is conducting a process to designate waters surrounding the

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Northwestern Hawaiian Islands as the nation's 14th sanctuary.

Sanctuary habitats include rocky reefs, lush kelp forests, whale migration corridors, spectacular deep-sea canyons and underwater archaeological sites. They provide safe habitat for rare and endangered species and house the remains of historic shipwrecks.

Nationwide and at each site, the program increases public awareness of our maritime heritage and conducts research, monitoring, exploration, education and outreach activities.

But many of the sites are remote, and all are underwater. Only a small number of Americans can "put their face in the water" at a national marine sanctuary to experience firsthand their beauty, richness of life and importance. That's where AZA members participate as valuable partners.

PARTNERING WITH AZA

NOAA's National Marine Sanctuary Program shares some common goals with AZA, including working to conserve natural resources through public education, scientific research, technology and training. As steward to America's ocean and Great Lakes treasures, the program has responsibility for conservation, management and research of these special marine environments. Together, the AZA and National Marine Sanctuary Program have agreed to a partnership that will help convey the value of national marine sanctuaries to the American people.

SANCTUARIES AND MEMBERS

Flower Garden Banks National Marine Sanctuary lies 100 miles from the Texas/Louisiana border in the Gulf of Mexico. There, the northernmost coral reef in the continental United States is home to manta rays, whale sharks, and "gardens" of corals and sponges. A destination popular with divers and scientists, the sanctuary is an often-unseen treasure for the public.

Visitors to Texas State Aquarium in Corpus Christi don't need to board a research vessel or brave the Gulf waters to experience the striking colorful coral that reminded 1900's fishermen of blooming gardens.

"We reach a large audience who might never experience the sanctuary," said Tara Schultz, Director of Science Education at Texas State Aquarium. "At the *Flower Garden Banks* exhibit, half a million visitors a year can enjoy the beauty of the coral gardens, watch the feeding of reef inhabitants, and learn about the sanctuary through interpretive talks."

"In turn," she said, "the sanctuary provides us with scientific expertise, information, educational materials and quality images that, as a non-profit, we greatly appreciate."

Cooperative programs between the aquarium and sanctuary include teacher workshops, a recent ROV workshop and 2001's highly successful Texas Regional Student Ocean Conference.

Flower Garden Banks National Marine Sanctuary also has partnerships with Tennessee Aquarium in Chattanooga and Audubon Aquarium of the Americas in New Orleans, with exhibits and educational programs at both aquaria. The combined annual visitorship of all three aquaria exceeds 2.5 million, people from all over the globe who experience a unique land-based opportunity to learn about a rare national marine treasure.

"The *Flower Garden Banks* exhibit is beautiful and educational," said Melissa Lee, Director of Public Relations at Audubon Aquarium of the Americas. "We see visitors literally slow down

and stop when they get to the *Flower Gardens*. The most common comment is that it's so close and they didn't know such an impressive coral reef is right here in the Gulf."

The Aquarium of the Pacific in Long Beach, Calif., is developing a partnership with the National Marine Sanctuary Program that will include displays and outreach opportunities for nearby Channel Islands National Marine Sanctuary, as well as Monterey Bay, Gulf of the Farallones and Cordell Bank national marine sanctuaries, all in California. The aquarium will also provide visitors with information about NOAA's other Pacific sanctuaries, Olympic Coast National Marine Sanctuary off Washington State, Hawaiian Islands Humpback Whale National Marine Sanctuary and Fagatele Bay National Marine Sanctuary in American Samoa, as well as the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve.

As an introduction to the aquarium, the staff members of Channel Islands National Marine Sanctuary were given a "backstage tour." To the delight of visitors, including a group of excited school children, sanctuary manager Chris Mobley and education coordinator Laura Francis experienced a dive in the *Blue Cavern* exhibit featuring the habitat of the Channel Islands.

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Gray's Reef National Marine Sanctuary, located in ocean waters southeast of Savannah, Georgia, is one of the most significant live bottom marine areas in the southeast. The sanctuary is working with South Carolina Aquarium in Charleston on exhibits and interpretation, which includes an underwater communications system in the Carolina Seas tank that allows discussion between visitors and divers about the live bottom found at Gray's Reef National Marine Sanctuary.



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Later, aquarium staff boarded a sleek 62-foot sanctuary research vessel and toured the Channel Islands — both a national park and national marine sanctuary — off the nearby Ventura coast.

Aquarium of the Pacific exhibits reference the sanctuaries, and sanctuary scientists and staff are available to appear at aquarium public programs. The aquarium is co-sponsoring a number of events, forums and workshops with the National Marine Sanctuary Program, including a recent issue-oriented regional workshop on Marine Protected Areas.

Gray's Reef National Marine Sanctuary, located in ocean waters southeast of Savannah, Georgia, is one of the most significant live bottom marine areas in the southeast. In a dramatic illustration of how ocean waters are connected to land and large metropolitan areas, the sanctuary is conducting a teacher workshop this summer with Georgia Aquarium in Atlanta. The workshop will consist of half teachers from Atlanta and half from the coast, and will give hands-on experience in the watershed from the city to the sanctuary.

The sanctuary is also working with South Carolina Aquarium in Charleston on exhibits and interpretation. One product of the partnership is an underwater communications system in the *Carolina Seas* tank that allows discussion between visitors and divers about the live bottom found at Gray's Reef National Marine Sanctuary.

The new *Gulf of Maine* exhibit at the New England Aquarium in Boston features a close look at the boulder reef community of Stellwagen Bank National Marine Sanctuary, which is rich with fish and invertebrates. Visitors will learn about the different species and habitats of the Gulf of Maine, as well as the Aquarium's role in protecting sustainable fisheries and the endangered North Atlantic right whale. The exhibit features a new, dramatic bow-front tank, as well as a video kiosk and interactive station, and the work was funded in part by the National Marine Sanctuary Program and the National Marine Sanctuary Foundation.

Thanks to proximity and common audiences, many sanctuaries around the country utilize AZA member sites as venues for events and receptions. Both Hawaiian Islands Humpback Whale National Marine Sanctuary and Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve hold events at the oceanfront Waikiki Aquarium. Monterey Bay National Marine Sanctuary's main office is located steps from Monterey Bay Aquarium, a landmark on the shore of the sanctuary. The aquarium provides a dramatic backdrop for meetings and events, and through its exhibits helps promote ocean stewardship.

GETTING INVOLVED

How can AZA members become involved with the National Marine Sanctuary Program? Matthew Stout, Communications Branch Chief for the National Marine Sanctuary Program suggests visiting the program's Web site at www.sanctuaries.noaa.gov to learn about sanctuaries around the country.

"Contact the program's communications office with any questions," he said, "or to be connected with a sanctuary site representative." Stout can be reached at (301) 713-3125 ext. 173, or matthew.stout@noaa.gov.

"Our sanctuaries across the country are rich resources for scientific information, education and outreach materials and images," he said. "We encourage AZA members to come to us with partnership ideas."

Sarah Marquis is West Coast/Pacific Media Coordinator for the NOAA National Marine Sanctuary Program.



WOLFFISH © NEW ENGLAND AQUARIUM

The new Gulf of Maine exhibit at the New England Aquarium features a close look at the boulder reef community of Stellwagen Bank National Marine Sanctuary. Visitors will learn about the different species and habitats of the Gulf of Maine, as well as the Aquarium's role in protecting sustainable fisheries and the endangered North Atlantic right whale. The exhibit includes a video kiosk and interactive station, and the work was funded in part by the National Marine Sanctuary Program and the National Marine Sanctuary Foundation.